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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,120	09/23/2005	Thomas Huck	022862-1065	4091

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EXAMINER	
DESAI, NAISHADH N	
ART UNIT	PAPER NUMBER
2834	

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03/05/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/551,120	HUCK ET AL.	
	Examiner	Art Unit	
	NAISHADH N. DESAI	2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 June 2008*.

2a)☒ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2,4-11,13-16 and 19-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2,4-11,13-16 and 19-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/10/2009 has been entered.

Claim Objections

2. Claim 19 is objected to because of the following informalities: It is not explicitly clear what applicant means by "the opening substantially uninterrupted between the radial and axial opening directions". Perhaps the words "is" or "being" should be added to clarify the claim language? Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 2,4-11 and 19,20 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lekeux et al (US 6191512) in view of Tamura et al (US 6819019) and Kokubu et al (JP 2004-166481).

3. Regarding independent claim 19, Lekeux et al teaches:

A gear drive unit comprising an electric drive motor (abstract), which has an armature shaft (Col 1 l 63), and at least one housing part (Fig 1,3 and 5), which accommodates the armature shaft , and

an electronic interface (Fig 1,5,5a,5b) for accommodating different plug-in modules (Fig 1,5,5a,5b) which can be inserted into the electronic interface in the insertion direction (Fig 1,P and 10 or arrow by numeral 5), and

the electronic interface having walls which are spaced apart from one another (Fig 1,P,10 and the "back side of electrical interface module" shown in top portion of Figure 1), with at least one first surface and guides being arranged on the walls (Fig 1,P and 10) along the insertion direction (arrow of elements P and 10) in order to seal off different plug-in modules (Fig 1,5) from the at least one housing part (Fig 1,3 and 5).

Lekeux et al do not appear to explicitly teach that the device is: "characterized in that the walls are approximately rectangular and form an opening perpendicular to and an opening axial to the armature shaft, and the

openings and are connected to one another and form a common opening with radial and axial opening directions, with the first surface being formed by the inner surfaces of the walls in order to seal off the plug-in modules at least partially radially in relation to the insertion direction”

Tamura et al teaches (Fig 8) a device that is “characterized in that the walls are approximately rectangular (Fig 8 by numeral 7e,7g 7d, 10f 10b) and form an opening perpendicular to (Fig 8, by arrow between numerals 21a and 7e) and an opening axial to the armature shaft (Fig 8, by arrow between numerals H and 10b), and the openings and are connected to one another and form a common opening with radial and axial opening directions (Fig 8 wherein elements 12 and 19 plugs into, indicated by arrows between 21a,7e and H, 10b), with the first surface being formed by the inner surfaces of the walls in order to seal off the plug-in modules at least partially radially in relation to the insertion direction (Fig 8 shows that the electrical interface modules (elements 12 and 19) are received in openings of the module indicated by arrows by elements 12 and 19 in both the radial and axial direction and that the module has first surface formed by the inner walls of the cavities in which the electrical interfaces are received).

Tamura et al do not appear to explicitly teach that "the opening substantially uninterrupted between the radial and axial opening directions”.

Kokubu et al (Figs 14 and 15 elements 112d,e and 113-116) teaches a motor having both radial and axial insertion directions wherein the opening is substantially uninterrupted between the radial and axial opening directions.

It would have been obvious to a person having ordinary skills in the art at the time the invention was made to modify the device of Lekeux et al with the teachings of Tamura et al and Kokubu et al to have the electrical interface "characterized in that the walls are approximately rectangular and form an opening perpendicular to and an opening axial to the armature shaft, and the openings and are connected to one another and form a common opening with radial and axial opening directions, with the first surface being formed by the inner surfaces of the walls in order to seal off the plug-in modules at least partially radially in relation to the insertion direction wherein the opening is substantially uninterrupted between the radial and axial opening directions. The motivation to do so would be that it would allow one to produce a motor having more flexible installation in a vehicle (due to openings in radial and axial direction). The motivation to do so would also be that it would keep the number of parts small and the incorporation simple (abstract of Tamura et al), allow one to provide a motor adaptable with different shapes of external connectors and their fitting directions at a low cost (abstract of Kokubu et al).

4. Regarding independent claim 24, Lekeux et al teaches:

A system for electrically adjusting movably arranged parts in a motor vehicle (abstract), in which system a gear drive unit (Col 1 ll 60-61) is combined with a plug-in module (Fig 1,5 or bottom portion of Figure 1), the gear drive unit comprising an electric drive motor (Fig 1,2), which has an armature shaft (Col 1 l 63), and

at least one housing part, which accommodates the armature shaft (Fig 1,1 and abstract), and an electronic interface (top portion of Fig 1 and abstract) for accommodating different plug-in modules (bottom portion of Figure 1) which can be introduced into the electronic interface in the insertion direction (it is obvious that the bottom portion of Figure 1 can be inserted into the top portion of Figure 1), and

the electronic interface having walls which are spaced apart from one another (Fig 1,5a,10 and P), with at least one first surface and guides being arranged on the walls (Figure 1,10 and P) along the insertion direction in order to seal off different plug-in modules (Fig 1,5 or bottom portion of Figure 1) from the at least one housing part (Figure 1,5a,5b and abstract), characterized in that the walls are approximately rectangular (Figure 1 shows that the walls are rectangular) and form an opening perpendicular to (Figure 1,5 top portion of figure and abstract) and an opening axial to the armature shaft (Figure 1,5 bottom portion of figure and abstract), and

the plug-in module (bottom portion of Figure 1) has a printed circuit board (Fig 1,6), an electronic connector (84) and a radial seal (Fig 1,12,5b,P) which can interact with at least one surface (Fig 1,5a,P) of the gear drive unit, and

the plug-in module has two outer walls which are arranged at an angle to one another and can close off openings (Figure 1,P,5,5b,8 and by element 12), which are connected to one another and have different opening directions (Figure 1,5,P), in the electronic interface, and

the two outer walls (Figure 1,5,8,P) are additionally connected to one another by means of an L-shaped frame element (re-illustration of Figure 1,label A below) in such a way that both the printed circuit board (Fig 1,6) and also connections of the electronic connector (Fig 1,8 and Col 2 ll 34-38, 46-48) are freely accessible in order to be mounted.

Lekeux does not appear to explicitly teach an electrical interface to have:

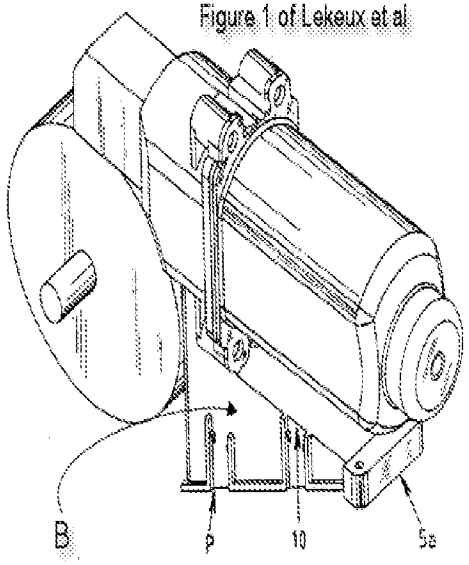
"the openings to be connected to one another and form a common opening with radial and axial opening directions, with the first surface being formed by the inner surfaces of the walls in order to seal off the plug-in modules at least partially radially in relation to the insertion direction" or that

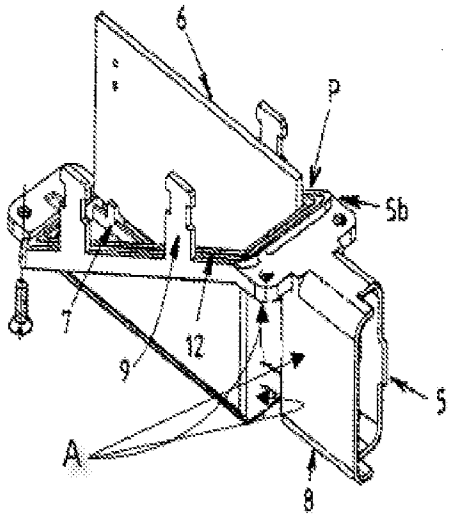
"at least one housing part of the gear drive unit is closed off in a water-tight manner".

Tamura et al (Fig 8) teaches an electrical interface wherein "the openings to be connected (Fig 8,12 and 19) to one another and form a common opening with radial and axial opening directions (by arrows of elements 12 and 19), with the first surface being formed by the inner surfaces of the walls in order to seal off the plug-in modules at least partially radially in relation to the insertion direction (Fig 8 shows that the electrical interface modules (elements 12 and 19) are received in openings of the module indicated by arrows by elements 12 and 19 in both the radial and axial direction and that the module has first surface formed by the inner walls of the cavities in which the electrical interfaces are received).

Tamura et al also teaches to make devices with electrical interfaces water proof (Col 1 ll 8-29).

Figure 1 of Lekeux et al





Tamura et al do not appear to explicitly teach that radial and axial openings directions having “a common opening extending substantially uninterrupted between the radial and axial opening directions”. Kokubu et al (Figs 14 and 15 elements 112d,e and 113-116) teaches a motor having both radial and axial insertion directions having no “a common opening extending substantially uninterrupted between the radial and axial opening directions”. It would have been obvious to a person having ordinary skills in the art at the time the invention was made to modify the device of Lekeux et al with the teachings of Tamura et al and Kokubu et al to have “the openings to be connected to one another and form a common opening with radial and axial opening directions, with the first surface being formed by the inner surfaces of the walls in order to seal off the plug-in modules at least partially radially in relation to the insertion direction” and that “at least one housing part of the gear drive unit is closed off in a water-tight manner” as Tamura et al teaches in Figure 8 and Col 1 ll 8-29 and for the radial and axial

openings directions to have a common opening extending substantially uninterrupted between the radial and axial opening directions. It is well known in the art to shape devices to fit into tight areas of vehicles and to make the connecting portions easy to access from different angles accordingly. The motivation to do so would be that it would allow one to produce a motor having more flexible installation in a vehicle (due to openings in radial and axial direction) and provide increased versatility (water proofing would allow one to mount the device in places where it would be exposed to water / rain or submerging). The motivation to do so would also be that it would keep the number of parts small and the incorporation simple (abstract of Tamura et al) and that it would allow one to provide a motor adaptable with different shapes of external connectors and their fitting directions at a low cost (abstract of Kokubu et al).

5. Regarding claim 20, Tamura et al teaches that the device is “characterized in that the two walls (by numerals 7e,7g,7d,10b,10f) form a housing (Fig 8,7) of the electronic interface (Fig 8,6,7), which housing can be sealed off by a plug-in module (Fig 8,12 or 19), and the internal volume of the housing (space wherein elements 12 and 19 slide into, indicated by space between 7g and 7e) approximately constitutes a cuboid which can be used as an additional motor compartment”.

Lekeux et al and Tamura et al discloses the claimed invention except for explicitly mentioning that the shape or size of the internal volume of the housing

approximately constitutes a cuboid which can be used as an additional motor compartment. It would have been an obvious matter of design choice to make the internal volume of the housing approximately constitutes a cuboid which can be used as an additional motor compartment, since such a modification would have involved a mere change in the shape of a component. A change in shape is generally recognized as being within the level of ordinary skill in the art. *In re Rose, 105 USPQ 237 (CCPA 1955)*. The motivation to do so would be based on the size and space requirements set forth during the design of the device, such as space available for the device to me mounted onto, space available for the gear mechanism, cooling requirements. The motivation would also be to reduce the number of parts and keep the incorporation simple (abstract of Tamura et al).

6. Regarding claim 2, Lekeux et al teaches (Fig 1,5 and P) that the electronic interface features at least a second sealing surface to seal various plug-in modules, wherein the at least two sealing surfaces are arranged offset at least partially with respect to the insertion direction.

7. Regarding claim 4, Lekeux et al teaches (Col 1 ll 66-67 and Col 2 ll 1-15,29-34 and Fig 1) that at least one housing part features a recess in the area of the electronic interface, into which a printed circuit board of the plug-in module can be inserted tangentially or radially to the armature shaft.

8. Regarding claim 5, Lekeux et al teaches that the second sealing surface is arranged essentially along the edge of the recess (Fig 1 shows a second sealing surface along the edge of a recess).

9. Regarding claim 6, Lekeux et al (Fig 1,5 and 12) teaches that the first sealing surface is arranged essentially along the edge of the openings.

10. Regarding claim 7, Lekeux et al teaches that the guides (Fig 1,9) are arranged for pressing one of the seals (Fig 1,12 or 3) that is arranged on the plug-in module against the sealing surfaces (Fig 1,5 and 12) and/or for mechanically holding on the edge of the axial opening.

11. Regarding claim 8, Lekeux et al (Fig 1,P) teaches that the walls of the electronic interface is arranged conically in the insertion direction.

12. Regarding claim 9, Lekeux et al teaches that that locking means (Fig 1,10) are arranged on the electronic interface to lock with counter locking means (Fig 1,9) on the plug-in module (Fig 1,5).

13. Regarding claim 10, Tamura et al teaches the gear drive unit features a brush holder (Fig 6b), on which an optional, particularly two-pin, plug is arranged for electric contacting (Fig 6b,17c), which projects from the at least one housing

part in the area of the electronic interface, which housing part is designed to be sealed in the area of the electronic interface (Col 7 ll 14-40).

14. Regarding claim 11, Tamura et al teaches (Fig 8) that at the first sealing surface (Fig 8,12,19) is arranged in such a way that it does not collide with the optional plug (Fig 8,15) that is formed on the brush holder and projects from the housing part

Claims 13-16 and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamura et al (US 6819019) in view of Lekeux et al (US 6191512).

15. Regarding independent claim 21, Tamura et al teaches:

A plug-in module (Fig 8,12 and 19) for insertion into an electronic interface (Fig 8,7) of a gear drive unit comprising an electric drive motor (Col 4 ll 6-11), which has an armature shaft (Col 3 l 55), and

at least one housing part (Fig 8,6), which accommodates the armature shaft, and an electronic interface (Fig 8,7) for accommodating different plug-in modules (Fig 8,12 and 19) which can be introduced into the electronic interface in the insertion direction (arrows between numerals 12,19 and H,10b), and

the electronic interface having walls which are spaced apart from one another (Fig 8,7e,7g,7d,10b), with at least one first surface and guides being arranged on the walls along the insertion direction in order to seal off different

plug-in modules from the at least one housing part (Fig 8 shows that guides on the inside of walls by numeral 7e,7g), wherein

the walls are approximately rectangular and form an opening perpendicular to (Fig 8,7e,7g) and an opening axial to the armature shaft (Fig 8,arrow between H and 10b), with the first surface being formed by the inner surfaces of the walls in order to seal off the plug-in modules (Fig 8,19 and inside portions of element 7e,7g) at least partially radially in relation to the insertion direction (Fig 8,19), wherein

an electronic connector (Fig 8,12,15,19) and a radial seal which can interact with at least one surface of the gear drive unit in such a way that at least one housing part of the gear drive unit is closed off in a water-tight manner (Col 8 ll 40-48), and

the plug-in module has two outer walls which are arranged at an angle to one another and can close off openings (Fig 8,12,15 and 19), which are connected to one another and have different opening directions, in the electronic interface (Fig 8,12,15 and 19),

Tamura et al teaches a motor with a rotation sensor for use in a vehicle. Tamura et al do not explicitly teach that the walls have “openings that are connected to one another and form a common opening with radial and axial opening directions”, or that “the plug-in module has a printed circuit board. Tamura et al also do not explicitly teach that “the two outer walls are additionally connected to one another by means of an L-shaped frame element in such a way

that both the printed circuit board and also connections of the electronic connector are freely accessible in order to be mounted".

Lekeux et al teaches (Col 2 ll 28-34) that openings can be made to connect to one another in both the radial and axial directions. Lekeux et al also teaches a motor having a circuit board (abstract). Lekeux et al further teaches "the two outer walls are additionally connected to one another by means of an L-shaped frame element (Fig 1, label A above) in such a way that both the printed circuit board (Fig 1,6) and also connections of the electronic connector are freely accessible in order to be mounted (Fig 1,P,5 and Col 2 ll 28-32)". Lekeux et al do not appear to explicitly teach that the radial and axial opening directions have no "structural hindrance between the radial and axial opening directions".

Kokubu et al (Figs 14 and 15 elements 112d,e and 113-116) teaches a motor having both radial and axial insertion directions having no "structural hindrance between the radial and axial opening directions".

It would have been obvious to a person having ordinary skills in the art at the time the invention was made to modify the device of Lekeux et al with the teachings of Tamura et al and Kokubu et al to have the electrical interface "characterized in that the walls are approximately rectangular and form an opening perpendicular to and an opening axial to the armature shaft, and the openings and are connected to one another and form a common opening with radial and axial opening directions, with the first surface being formed by the inner surfaces of the walls in order to seal off the plug-in modules at least partially radially in relation to the insertion direction and having no structural

hindrance between the radial and axial opening directions. The motivation to do so would be that it would allow one to produce a motor having more flexible installation in a vehicle (due to openings in radial and axial direction). The motivation to do so would also be that it would keep the number of parts small and the incorporation simple (abstract of Tamura et al), allow one to provide a motor adaptable with different shapes of external connectors and their fitting directions at a low cost (abstract of Kokubu et al) and that it would allow one to change the shape of the device's openings to be able to connect to one another in the radial and axial directions and to use a circuit board. The motivation to do so would be that it would allow for ease of integration of electronic circuits into vehicles, in particular a motor that can be easily associated with electronic circuits (Col 1 ll 19-27 of Lekeux et al).

16. Regarding claim 13, Tamura et al (Fig 8,19) teaches an electronic plug, whose plugging direction runs essentially radial to the armature shaft.

17. Regarding claim 14, Tamura et al (Fig 8,12,15) teaches an electronic plug, whose plugging direction runs essentially radial to the armature shaft.

18. Regarding claim 15, Tamura et al teaches a jacket-like housing (Fig 1), which can cooperate with the one seal (Fig 8,12) with the second sealing surface of the gear drive unit (Fig 8,15) and can be sealed with another seal vis-à-vis a cover of the plug-in module that features a plug (Fig 8,15).

19. Regarding claim 16, Lekeux et al (Fig 1,6 and Fig 2) teaches a printed circuit board. Lekeux et al do not literally mention that “on whose side facing the armature shaft at least parts of a speed detection device, in particular a Hall sensor system, are arranged”. Tamura et al teaches the use of a Hall sensor system (Col 8 ll 32-33). It would have been obvious to a person having ordinary skills in the art to make the circuit board have a Hall sensor system is arranged on it. Examiner notes that it is obvious (from Figure 2 of Lekeux et al) that various elements including a Hall sensor can be mounted directly on the circuit board of Lekeux et al. the motivation to do so would be that it would reduce the number of parts and make incorporation simple (abstract of Tamura et al).

20. Regarding claim 22, Lekeux et al teaches (Fig 1,5,5a,5b,6) ”that the printed circuit board can be mounted laterally, perpendicular in relation to the insertion direction, on the electronic connector in a simple manner without obstruction and with the connections making contact with the printed circuit board by means of press-fit technology.

In regards to claim 22, the method of making limitations are not germane to the patentability of the apparatus and have not been given patentable weight. The patentability of the product does not depend on its method of production. If the product in the product by process claim is the same or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process". In re Thorpe, 777 F.2d 695, 698, 227 USPQ

964, 966(Fed. Cir. 1985). In this instance the case it is obvious that the mounting of the printed circuit board can be done perpendicular or in parallel in relation to the insertion direction, as Lekeux et al shows the printed circuit board mounted on the plug in module. It is clear from Figure 1 of Lekeux et al that the printed circuit board can be mounted either from the perpendicular direction or the parallel direction in regards to the electrical interface.

21. Regarding claim 23, Tamura et al (Col 8 ll 40-57) teaches the use of "current contacts establishing a power supply to mating contacts of a brush holder of the gear drive unit'. Tamura et al do not teach the "current contacts are located directly on the L-shaped frame element".

Lekeux et al teaches that current contacts (Fig 1,6a) are arranged on the L-shaped form of the circuit board (Fig 2). Lekeux et al do not appear to explicitly illustrate that the current contacts are located directly on the L-shaped frame element of the plug in module. Examiner notes that it is obvious that the current contacts of the circuit board are connected directly to a connector (element 5 in Figure 1 of Lekeux et al).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to arrange the "current contacts are located directly on the L-shaped frame element", since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japiske, 86 USPQ 70.*

Response to Arguments

22. Applicant's arguments with respect to claims 1-2, 4-11,13-16,19-24 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

23. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892 for details.

24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to NAISHADH N. DESAI whose telephone number is (571)270-3038. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Quyen Leung can be reached on (571) 272-8188. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Quyen P Leung/
Supervisory Patent Examiner, Art Unit 2834

Naishadh N Desai
Patent Examiner